

**ABSTRACT**

Descriptions are provided for implementing flowmeter zeroing techniques. In operating a flowmeter, it may be the case that, if not properly calibrated, the flowmeter will produce erroneous measurements, e.g., will indicate a non-zero flow during a period of zero flow. By determining a magnitude of such erroneous measurements, calibration values may be determined, which may later be used to adjust a measurement that is output by the flowmeter and thereby improve an accuracy of the flowmeter. Such calibration values may be determined for a plurality of operational conditions associated with the flowmeter, such as densities of materials being measured, and/or configurations of flow elements associated with transporting material to the flowmeter. Then, the calibration values may be correlated with the relevant operational conditions, and stored for later use. In this way, during an actual operation of the flowmeter, a number of calibration values may be made available, and an optimal calibration value may be selected for an existing operational condition of the flowmeter.

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